

Environmental Executive Notes

May 2001

News from the U.S. Army Engineer Research and Development Center
Environmental Laboratory

ERDC EL Assists Port of Oslo with Contaminated Sediment Dredging

The Port of Oslo, Norway, is currently evaluating options for dredging and disposal of approximately 800,000 m³ of contaminated sediments to deepen and clean the Oslo Harbor area in preparation for major development projects. ERDC recently provided technical assistance to the Port for this work under its ongoing Cooperative Research and Development Agreement (CRADA) with Norwegian Environmental Technologies (NET). The approach for the project will involve Contained Aquatic Disposal (CAD) placement of the contaminated material in a deep basin within the Oslo fjord. ERDC will assist in the design of the CAD placement project under the CRADA, and is also working with NET to develop approaches for sediment cleanups within other fjords throughout Norway.

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Invasive Species Symposium

Dr. Alfred F. Cofrancesco chaired a Symposium on Invasive Species at the 16th Triennial DoD Pest Management Workshop, conducted at the Naval Air Station, Jacksonville, FL (26 Feb–2 Mar 2001). The symposium presented information on subjects dealing with the full range of DoD invasive species issues (invasion, prevention, detection, management and habitat restoration). Eighteen individuals participated representing all the services, many of the MACOMS, four of the ERDC laboratories (EL, CRREL, TEC, CERL), as well as other Federal Agencies.

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ERDC EL Web site: www.wes.army.mil/el

SILT's Wing Excavator Demonstrated in Houston Ship Channel

An innovative technology, SILT's Wing Excavator, was recently demonstrated at the mouth of Green's Bayou and the Houston Ship Channel in the Galveston District. The Wing Excavator is a water jet device. Its axial flow system directs and focuses water currents on a submerged sediment mass to displace the sediments some horizontal distance away from the target area. The result is similar to the action of underwater bulldozing of the sediments. This action can be termed hydro-blading. The Wing Excavator moved approximately 33,000 cu yd of material from the shoaling area along a distance of about 800 ft. Monitoring of the operation showed no visible resuspended sediment plumes in the water column. In fact, the mud flow stayed near the bottom of the channel at all times. Field observations will be confirmed in the laboratory with samples being analyzed for turbidity and TSS. This project was a joint effort between the DOER Innovative Technologies program and the Galveston District. A report will be prepared to present the results of this very successful demonstration project.

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Technology Transfer of Automated Submersed Vegetation Mapping System

The Submersed Aquatic Vegetation Early Warning System (SAVEWS), developed in the Environmental Laboratory at ERDC, consists of a linked digital echo sounder, GPS, and signal-processing components. SAVEWS rapidly detects and maps submersed aquatic vegetation at greater depths and lower density than can be detected by conventional aerial or satellite imaging techniques. A Cooperative Research and Development Agreement has been finalized to license the SAVEWS processor patent to Biosonics, Inc., of Seattle, WA, the manufacturer of the digital echo sounder component. Under this agreement, Biosonics will market SAVEWS and provide technical support and training for users. Additional development to improve and enhance performance will be done cooperatively as part of this agreement.

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The most recent edition of **Army AL&T** reported on environmental technology exchange that is occurring between the United States and Germany. Environmental stewardship represents a vital component of the Army's mission in the United States as well as Germany and a Master Data Exchange Agreement (DEA) between the United States and Germany provides a framework to exchange data in a variety of research and technology areas. This exchange of data has recently resulted in the German Ministry of Defense undertaking the demonstration of an ex situ electrokinetic remediation of metal-contaminated soil on a grenade range in Bergen, Germany. The United States will provide technical input and will review progress based on prior US involvement in electrokinetic remediation and demonstration programs at the U.S. Army Engineer Waterways Experiment Station and the U.S. Army Environmental Center. This project clearly illustrates the effectiveness of hands-on sharing of expertise and resources to achieve a common purpose: solving pressing environmental problems associated with military operations.

POC: Army AL&T, <http://dacm.sarda.army.mil/publications/rda/>

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Basic Hydric Soils Courses

A training course will be offered 19-21 June 2001 in Coeur d'Alene, Idaho for field personnel responsible for delineating wetlands or for those seeking an update on interpreting wetland soils. In addition to classroom lectures and field exercises, the course will seek user-specific concerns and questions on problem soils in advance of the course and address those particular needs during the course. The Wetlands Regulatory Assistance Program sponsors the courses, so there is no tuition charge.

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Workshops

Environmental Technologies Area Workshop

The Environmental Technologies Area Workshop was held 28 Feb–1 Mar 2001 at the Waterways Experiment Station in Vicksburg, Mississippi. Workshop attendees included representatives from Corps Major Subordinate Commands, Engineer Research and Development Center, the Institute for Water Resources, and Headquarters. The workshop focused on MSC involvement in defining future environmental area technology requirements, technology investments, and technology transfer to the field. In addition, all Environmental Area R&D Programs and program activities were reviewed.

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TRB Workshop

A national workshop on environmental windows for dredging projects, hosted by the Transportation Research Board of the National Research Council (NRC), was held in Washington, DC, on 19-20 Mar 2001. Participants represented a broad cross-section of stakeholders in the dredging arena, including the Corps, Federal and state resource agencies, academia, and nongovernment organizations. The NRC recommends new and improved approaches to objectively determine appropriate dredging windows and works to achieve a balance between the need for resource protection and cost-effective dredging practices. Results of the review should be published in late summer.

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The risk focus area of DOER will sponsor an experts workshop later this year, date to be determined, to explore the use an application of comparative risk assessment in the U.S. dredging program.

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Upcoming Environmental Events

May 19-26, 2001 – Montreal, CANADA, 22nd Biennial Conference International Association of Ports and Harbors. **POC:** www.iaphworldports.org/events/montreal.htm

Jun 4-7, 2001 – San Diego, CA, "In Situ and On-Site Bioremediation; Sixth International Symposium." **POC:** 800-783-6338

Jun 4-8, 2001 – Northern California, "Advanced Plant Identification (Grasses, sedges, rushes, and aster)." **POC:** Bob Lichvar, 603-646-4657, Robert.W.Lichvar@erdc.usace.army.mil

Jun 18-20, 2001 – San Diego, CA, "Fourth Tri-Service Environmental Technology Symposium." **POC:** www.ets-2001.com

Jul 18, 2001, Minneapolis, MN, "Program Review for the Aquatic Plant Control Research Program." **POC:** Bob Gunkel, 601-634-3722, gunkelr@wes.army.mil.

Jul 15-18, 2001 – Minneapolis, MN, "41st Annual Meeting of the Aquatic Plant Management Society." **POC:** www.apms.org

Jul 30-Aug 3, 2001 – Basic Wetland Plant Identification - FWS NCTC, WV. **POC:** Bob Lichvar, 603-646-4657, Robert.W.Lichvar@erdc.usace.army.mil

Aug 27-31, 2001 – Reno, NV, "Wetlands Engineering and River Restoration Conference 2001." **POC:** 800-548-2723, conf@asce.org

Sep 5-6, 2001 – Burlington, VT, "Wetlands and Remediation, Second International Conference." **POC:** 800-783-6338, conferencegroup@compuserve.com

Oct 22-25, 2001 – Amherst, MA, "The 17th Annual International Conference on Contaminated Soils, Sediments, and Water." **POC:** Denise Leonard, 413-545-1239, dleonard@schoolph.umass.edu

Nov 5-7, 2001 – St. Pete Beach, FL, "7th International Conference on Estuarine and Coastal Modeling (ECM7)." **POC:** www.oce.uri.edu/emc7